

Contents

Overview of the Valuation**Process.....3**

Completing the Property Record Card	5
Completing the Sketch Grid and the Dwelling Data Area	5
Task 1—Recording the Physical Characteristics	5
Task 2—Identifying the Mobile or Manufactured Home and Describing its Basement, Crawl and Attic.....	7
Task 3—Recording Information About the Construction	9
Completing the Summary of Residential Improvements Section	14
Task 1—Recording Information	16
Task 2—Determining the Replacement Cost	20
Task 3—Calculating the Remainder Value	29
Task 4—Calculating the Improvement Value.....	31
Task 5—Calculating the Total Residential Improvement Value.....	33

Tables

Table 4-1. Source of Property Data Options.....	7
Table 4-2. Basement Options.....	9
Table 4-3. Crawl Space Options.....	9
Table 4-4. Recreation Room Codes	12
Table 4-5. Condition Rating.....	19

Figures

Figure 4-1. Modular, Mobile and Manufactured Home Labels.	4
Figure 4-2. Sketch Grid Example	6
Figure 4-3. Identifying a Mobile or Manufactured Home and Describing its Attic, Basement, and Crawl.....	8
Figure 4-4. Describing the Construction.....	10
Figure 4-5. Summary of Residential Improvements Section	15
Figure 4-6. Columns Completed in Task 1	17
Figure 4-7. Columns Completed in Task 2	21
Figure 4-8. Single-Wide with Extension	22
Figure 4-9. Double-Wide/Single-Wide Combination.....	23
Figure 4-10. Columns Completed in Task 3	30
Figure 4-11. Columns Completed in Task 4	32
Figure 4-12. Calculating the Total Residential Improvement Value Example 1	34
Figure 4-13. Calculating the Total Residential Improvement Value Example 2.....	36

Overview of the Valuation Process

This chapter provides the guidelines for establishing the valuation of real property mobile and manufactured homes. To qualify as real property under these guidelines, a mobile or manufactured home must be located on a permanent foundation or located on land owned by the homeowner.

This chapter includes guidelines for collecting and recording the physical data of the home, as well as for collecting and recording the physical data of any basement or stick-built room additions on the home. This chapter also describes the process for valuing mobile and manufactured homes and calculating the total true tax value of these structures.

Step-by-step instructions are provided for completing the following sections of the property record card for a mobile or manufactured home:

- the sketch grid
- the dwelling data area
- the “Summary of Residential Improvements” section.

Note: Modular homes are valued as dwelling units, following the instructions provided in Chapter 3.

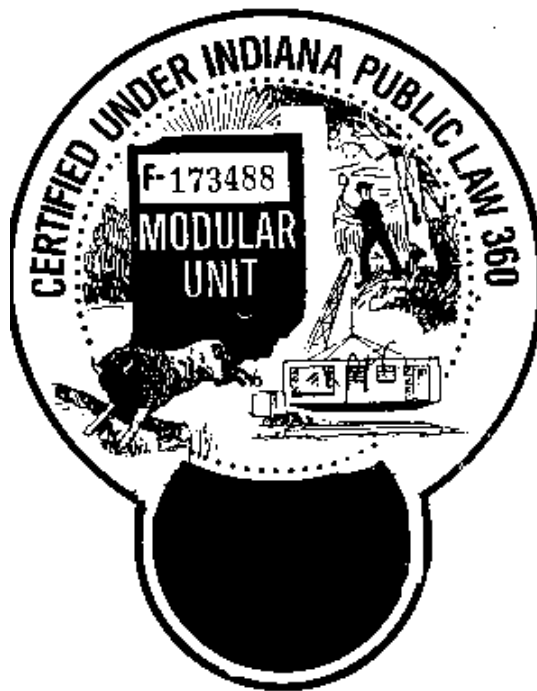
For real property assessment purposes, the following definitions apply:

- “Mobile home” means a transportable, factory-assembled home that:
 - is at least 35’ long
 - is intended for year-round occupancy
 - is transportable on its own chassis, and uses the transportation undercarriage as an essential construction component
 - was built before June 15, 1976.
- “Manufactured home” means a factory-designed and factory-built home that bears a seal certifying that it was built in compliance with the Federal Manufactured Home Construction and Safety Standards Act of 1974. A home with the characteristics of a mobile home except that it was built after June 15, 1976 is considered to be a manufactured home.
- “Modular home” means a factory-assembled home that is built to meet local and state building code requirements for industrialized housing. A panelized or prefabricated home, which consists of site-assembled, factory-built components, is an example of a modular home.
- “Permanent Foundation” means any structural system capable of transposing loads from a structure to the earth at a depth below the established frost line.

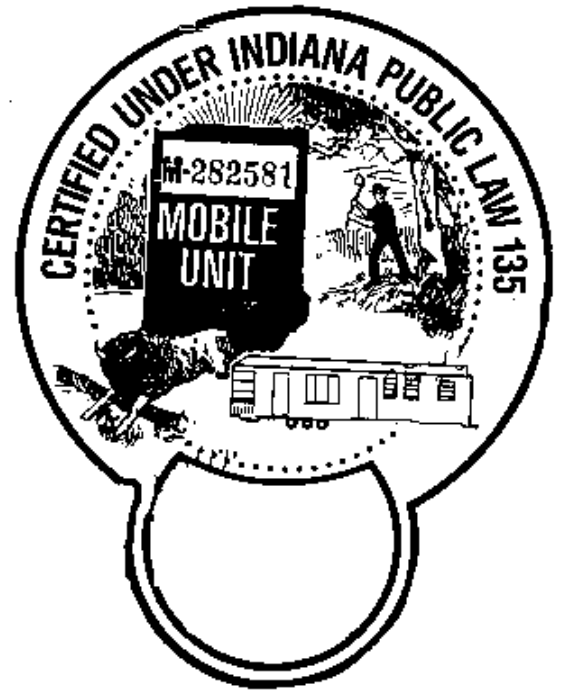
Figure 4-1 shows labels that are affixed to a mobile home, manufactured home or a modular home, prior to November of 1997, to help you differentiate between them. The new labels that have been used since November 1997 were not available in time to place in this manual, but are very similar and clearly distinguish these type structures as well.

The following sample labels are to be used to help distinguish mobile homes, manufactured homes, and modular homes. The top two labels (modular, mobile) can be located within the structure, usually in the electrical service box. The bottom label can be found on the exterior of a manufactured home, usually just to the left of the front entrance. In the case of a double wide manufactured home, you should be able to locate two (2) labels, one in the front and one in the back of the structure.

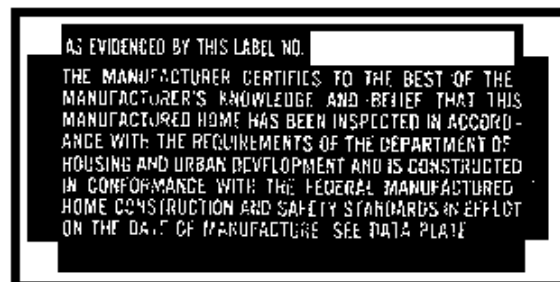
SAMPLE LABELS



Appears on all Modular structures built to the one & two family dwelling code



Appears on all Mobile structures & single family homes built prior to June 15, 1976



HUD Label -- Appears on single family Manufactured homes constructed after June 15, 1976

Figure 4-1. Modular, Mobile and Manufactured Home Labels.

Completing the Property Record Card

For a mobile or manufactured home, you complete the sketch grid, the dwelling data area, and the “Summary of Residential Improvements” section of the residential property record card. Instructions are provided in the sections below.

Completing the Sketch Grid and the Dwelling Data Area

The steps for completing the sketch grid area and dwelling data area for a mobile or manufactured home are grouped into the following tasks, described in the sections below:

- Task 1—Record the physical characteristics of the home.
- Task 2—Identify the home, and describe its basement and crawl.
- Task 3—Record information about the home’s construction.

Task 1—Recording the Physical Characteristics

A sketch grid, shown in Figure 4-2, is provided on the property record card to make a plain view sketch of the mobile or manufactured home, as well as any attached room additions and exterior features of the home. On the sketch grid, you also indicate the source of the data collected for the property.

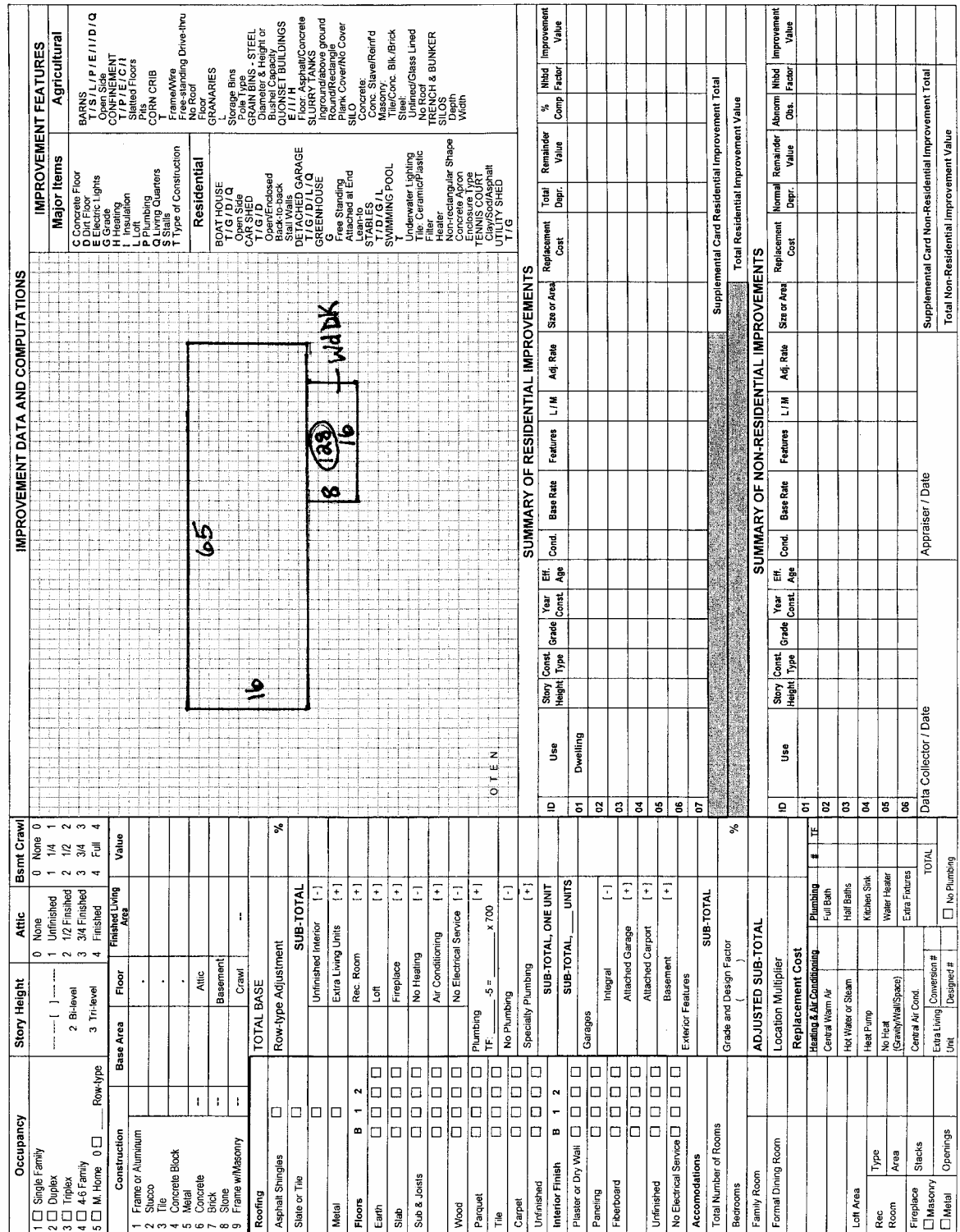


Figure 4-2. Sketch Grid Example

To complete the sketch grid on the property card, perform these steps:

- Step 1 Draw the mobile or manufactured home, as well as any attached room additions and exterior features, to scale as closely as possible. Orient the home with the side facing the street toward the bottom of the sketch grid.
- Step 2 On your sketch, enter all outside dimensions of the mobile or manufactured home, and all room additions and exterior features. Guidelines are provided in the section ***Measuring and Calculating Areas*** in Chapter 3.
- Step 3 Compute the gross square foot ground area of each individual exterior feature and room addition.
- Step 4 Enter the story height of each room addition and exterior feature. Information about determining the story height is provided in the section ***Determining the Story Height Description*** in Chapter 3.
- Step 5 Identify each room addition and exterior feature, and the exterior wall construction of each room addition and exterior feature.
- Step 6 If the mobile or manufactured home does not have a permanent foundation, indicate the amount of skirting (in linear feet) surrounding the home.
- Step 7 Use abbreviations and symbols to label components of the mobile or manufactured home in the sketch area. Guidelines are provided in the section ***Labeling the Sketch Grid*** in Chapter 3.
- Step 8 To indicate the source of the property data, circle the appropriate letter or letters listed in the bottom left of the sketch grid. Table 4-1 describes the options.

Table 4-1. Source of Property Data Options

This option	Indicates
O	Owner
T	Tenant
E	Estimated
N	Building was not entered; information was obtained at the door.

Task 2—Identifying the Mobile or Manufactured Home and Describing its Basement, Crawl and Attic

The property record card does not include a check list specifically for a mobile or manufactured home. Data collected for a mobile or manufactured home is recorded in the dwelling data area. In part of the dwelling data area, shown in Figure 4-3, you identify the structure as a mobile home or manufactured home, and describe its attic, basement, and crawl.

Figure 4-3. Identifying a Mobile or Manufactured Home and Describing its Attic, Basement, and Crawl

To identify the structure as a mobile or manufactured home, and to describe its attic, basement, and crawl, perform the following steps:

- Step 1 In the “Occupancy Section”, place a check in the “M. Home” check box, Option 5.
- Step 2 In the “Story Height” section, enter “1” in the left-most character position and enter “0” in the next character position. The space appears as

1 . 0 [] ____

- Step 3 In the “Attic” section, circle “0” to indicate that the mobile home has no attic.
- Step 4 In the “Bsmt” section, circle the code that best describes the basement. Table 4-2 describes the basement options.

Table 4-2. Basement Options

This option	Indicates
0	No basement
1	Basement is below 1/4 of the floor area.
2	Basement is below 1/2 of the floor area.
3	Basement is below 3/4 of the floor area.
4	Basement is below all of the floor area.

- Step 5 In the “Crawl” section, circle the code that best describes the crawl space. Table 4-3 describes the crawl space options.

Table 4-3. Crawl Space Options

This option	Indicates
0	No crawl space
1	Crawl space is below 1/4 of the floor area.
2	Crawl space is below 1/2 of the floor area.
3	Crawl space is below 3/4 of the floor area.
4	Crawl space is below all of the floor area.

Task 3—Recording Information About the Construction

The property card provides space, shown in Figure 4-4, to record information about the construction of the mobile or manufactured home.

[illegible]

Figure 4-4. Describing the Construction

To complete this section of the property record card, perform these steps:

- Step 1 In the “Construction” section, determine the type of exterior wall construction of the mobile or manufactured home and enter the number in the column to the left of the “Base Area” column.
- Step 2 In the “Roofing” section, place a check in the check box corresponding to the mobile or manufactured home’s predominant roofing material. If more than one material is used, indicate the other materials by entering “p” for part in the check box instead of a check. Use the blank line with a check box for entering a roofing type that is not listed.
- Step 3 In the “Floors” section, check the floor construction and the finish flooring for the basement, if applicable, and the first floor. Follow these guidelines:
- The column heading “B” indicates basement and “1” indicates first floor.
 - *If there is more than one type of floor construction or finish on one floor, enter “p” for part in the check box instead of a check.*
- Step 4 In the “Interior Finish” section, check the finish for the basement, if applicable, and the first floor. Follow these guidelines:
- The column heading “B” indicates basement and “1” indicates first floor.
 - *If the finish of any of the floors is not consistent, enter the number of rooms to which the finish applies in the check box instead of a check.*
- Step 5 In the “Accommodations” section, enter the number of specific rooms and fireplaces:
- a. In the “Total Number of Rooms” cell, enter the total number of finished rooms, bathrooms, and utility rooms. When counting rooms, a kitchen-dining or living-dining combination is considered one room.
 - b. In the “Bedrooms” cell, enter the total number of rooms specifically designed as bedrooms, regardless of use.
 - c. In the “Family Room” cell, enter the total number of family rooms and informal living rooms with a quality of finish consistent with the general finish of the dwelling. There is a separate entry for basement recreation rooms.
 - d. In the “Formal Dining Room” cell, enter the total number of rooms specifically designed for dining, regardless of use.
 - e. *If there are rooms used for commercial purposes, such as a commercial office, beauty salon, or any other room not typical of mobile or manufactured homes, list the room(s) in the blank space provided below “Formal Dining Room”. To the right of this cell, enter the total number of these rooms.*

- f. *If there are any basement recreation rooms that add value to the home*, use Table 4-4 to determine the appropriate code for the basement recreation room, and enter the code in the “Type” cell. Record the approximate area in the “Area” cell.

Table 4-4. Recreation Room Codes

This code	Indicates the presence of
Rec 1	Flooring and ceiling finish
Rec 2	Flooring, ceiling, and interior wall finish
Rec 3	Flooring, ceiling, interior wall finish, and partitioning
Rec 4	Flooring, ceiling, interior wall finish, partitioning, and built-ins

- g. *If there are any fireplaces*, indicate the construction type, number of stacks, and number of openings. Follow these guidelines:
- *If the fireplace is a prefabricated metal type, ventless gas or vent-free gas*, place a check in the “Metal” check box. In the “Stacks” cell, enter the total number of stacks. In the “Openings” cell, enter the total number of fire openings.
 - *If the fireplace is the traditional masonry type*, place a check in the “Masonry” check box. In the “Stacks” cell, enter the total number of stacks. In the “Openings” cell, enter the total number of openings.

Step 6 In the “Heating & Air Conditioning” section, indicate the type of heating system in the mobile or manufactured home. Follow these guidelines:

- Place a check in the cell corresponding to the appropriate type of heating.
- *If the home has a heating system other than those listed*, write a description in the blank space provided and place a check in the corresponding cell.
- *If the home has a geothermal or solar heating system as its sole central heating system*, place a check in the “No Heat” cell and write “geothermal heating only” or “solar heating only” in the blank space provided.
- *If the dwelling has no central heating system*, check “No Heating” and circle “Gravity”, “Wall”, or “Space”.
- *If there is central heating for a portion of a finished living area*, enter those floors or that area instead of a check. A partial adjustment to the base price is made when a portion of the home does not have a central heating system.

- Step 7 Also in the “Heating & Air Conditioning Section”, place a check in the “Central Air Cond.” cell to indicate that the mobile or manufactured home has either a separate or combined central air conditioning system. Follow these guidelines:
- *If there is central air conditioning for only a portion of a finished living area*, enter those floors or that area instead of a check.
 - *If the mobile or manufactured home has a heat pump listed as the heating system*, place a check in the “Central Air Cond.” cell.
 - *If the mobile or manufactured home has a geothermal or solar cooling system as its sole central cooling system*, do **not** check the “Central Air Cond.” cell. Geothermal and solar systems are priced from the cost schedules provided in Appendix C. The amount is added as a separate line entry in the “Summary of Residential Improvements” section of the property record card.
- Step 8 In the “Plumbing” section, enter the number of full and half baths, kitchen sinks, water heaters, and extra fixtures in the “#” column. In the “TF” column, enter the total number of plumbing fixtures in each category. Follow these guidelines:
- *If the mobile or manufactured home does not have plumbing*, place a check in the “No Plumbing” check box.
 - A full bath has three plumbing fixtures and a one-half bath has two fixtures.
 - A total of more or less than five plumbing fixtures requires an adjustment in the pricing ladder. The following five plumbing fixtures are included in the base price:
 - bathroom sink
 - bathroom stool
 - bathtub or shower unit
 - water heater
 - kitchen sink
- Step 9 Assign a grade to the mobile or manufactured home. If the home has any room additions and/or any exterior features, assign a grade to each addition and/or feature. Record the grade for each structure on individual rows in the “Grade” column of the “Summary of Residential Improvements” section. Information about determining the grade is provided in Appendix A.

Completing the Summary of Residential Improvements Section

The valuation of mobile and manufactured homes is recorded in the “Summary of Residential Improvements” section of the property record card, shown in Figure 4-5, instead of in the replacement cost pricing ladder. Use the section to itemize the following structures:

- the mobile or manufactured home
- the basement
- each manufacturer-designed room addition
- each stick-built room addition, which is a room addition that is built on site by conventional means
- each exterior feature
- solar and geothermal heating and cooling systems.

Each row corresponds to one particular structure. The improvement value of all of the structures is totaled at the bottom of the table.

Note: If the property has more structures than there are rows in this section of the property record card, use an additional card (or cards) to describe those structures.

The steps for completing the property record card for mobile or manufactured home structures are grouped into the following tasks, described in the sections below:

- Task 1—Record information about the structure.
- Task 2—Determine the replacement cost for the structure.
- Task 3—Calculate the remainder value of the structure.
- Task 4—Calculate the improvement value of the structure.
- Task 5—After performing Task 1 through Task 4 for each structure, calculate the total residential improvement value for the property.

Note: Instructions for completing the “Summary of Non-Residential Improvements” section for residential and agricultural yard structures are provided in Chapter 5.

Note: Mobile/Manufactured homes are not adjusted for location by a location cost multiplier. Any other site built improvement should be adjusted for location by a location cost multiplier.

[illegible]

Figure 4-5. Summary of Residential Improvements Section

Task 1—Recording Information

In this task, you provide descriptive information about the characteristics of the structure. The shading in Figure 4-6 indicates the columns of the “Summary of Residential Improvements” table that you complete in this task.

Figure 4-6. Columns Completed in Task 1

To record information about the structure, perform these steps:

- Step 1 In the “ID” column, select an identification number for the structure. Record the information about the structure in the row corresponding to this identification number. Also, use this number to identify the structure in the sketch grid.
- ID 01 is reserved for the dwelling on the property. ID 02 is reserved for a detached garage.
- Step 2 In the “Use” column, enter the predominant use of the structure.
- Step 3 In the “Story Height” column, enter the height of the structure, such as 1S, 2S, and so forth, as it appears on the sketch grid.
- Step 4 *If the structure is a room addition*, enter the type, such as Type 1, Type 2, and so forth, of exterior wall construction used for the structure in the “Const. Type” column.
- If the structure is **not** a room addition*, leave this column blank.
- Step 5 In the “Grade” column, enter the grade for the structure. Information about determining the grade for a structure is provided in Appendix A.
- Step 6 In the “Year Const.” column, indicate when the structure was originally constructed. Follow these guidelines:
- If you are sure of the date, enter just the date, for example “1990”.
 - If you (the assessor) must estimate the date, enter the date followed by a question mark, for example “1985?”.
 - If the owner estimates the date, enter the date followed by “+/-”, for example “1985+/-”.
 - Enter “Old” to indicate construction prior to June 15, 1976 for a mobile home, which is depreciated from the “Pre HUD Code” mobile home depreciation schedule.
- Step 7 In the “Cond” column, enter the code indicating the assigned condition of the structure. Table 4-5 describes the codes for this column.

Table 4-5. Condition Rating

CONDITION RATING	EXPLANATION OF CHARACTERISTICS
Excellent	The structure is in near perfect condition. It is very attractive and is highly desirable. It meets all current design requirements as set forth by the buyers and sellers in the market. Generally, any item that could be or would be normally repaired or refurbished has been corrected. There are generally no functional inadequacies of any consequence and all of the short-lived items are in like new condition.
Good	Minor deterioration visible in the building. It is more attractive and more desirable than the average building of its chronological age. Generally, all items are well maintained and many of them have been overhauled and repaired as they have shown signs of wear. There is very little deterioration or obsolescence evident and there is a high degree of functional utility in the parcel and in the structure.
Average	Normal wear and tear is apparent in the building. It has average attractiveness and desirability. There are typically minor repairs that are needed along with some refinishing. In this condition, most of the major components are still viable and are contributing to the overall utility and value of the property.
Fair	Marked deterioration is evident in the structure. It is rather unattractive or undesirable but still quite useful. This condition indicates that there are a substantial number of repairs that are needed. Many items need to be refurbished, overhauled, or improved. There is deferred maintenance that is obvious.
Poor	Definite deterioration is obvious in the structure. It is definitely undesirable or barely useable. Extensive repair and maintenance are needed on painted surfaces, the roof, and the plumbing and heating systems. There may be some functional inadequacies or substandard utilities. There is extensive deferred maintenance.
Very Poor	Conditions in the structure render it unusable. It is extremely unfit for human habitation or use. There is extremely limited value in use and it is approaching abandonment. The structure needs major reconstruction to have any effective economic value.

Note: Instructions for determining the condition rating for a structure are provided in Appendix B.

Step 8 *If the structure is a mobile or manufactured home*, enter the exterior wall measurements (length and width) of the home (in feet) in the “Size or Area” column.

Note: The exterior wall measurements of a mobile or manufactured home do not match the manufacturer’s size rating, which includes the tow bar.

If the structure is a room addition or exterior feature, enter the area of the structure (in square feet).

- Step 9 In the “Total Depr.” column, enter the percentage of reduction in value due to total depreciation. Information about evaluating total depreciation is provided in Appendix B.

Task 2—Determining the Replacement Cost

The cost schedules for mobile and manufactured homes provide whole dollar unit values based on the typical exterior wall measurements of mobile and manufactured homes. These typical sizes are sizes that are known to have been manufactured in the past or are presently under development. Once you have determined the base price for the mobile or manufactured home using the cost table, you adjust it by:

- adding the appropriate amount if the home has air conditioning
- deducting the appropriate amount if the home lacks a central heating system
- adding the appropriate amount if the home has a crawl space. The amount added is determined from the “Add Foundation” column.

Note: If the home has a basement as a permanent foundation, the basement is valued as a separate structure.

- adding the appropriate amount if the home has skirting
- adding or deducting the appropriate amount for more or fewer plumbing features than the standard number included in the base price
- adding the appropriate amount if the home has any expando or tip-out room additions, which are designed room additions that are transported as part of the home and, when expanded (or tipped out) create an extension to a particular room.

The base price for a stick-built room addition is determined using the “Additions” section of Schedule E.2. The schedule is provided in Appendix C.

The base price for an exterior feature is determined using the “Exterior Features” section of Schedule E.2. These base rates are based on the type of feature, the construction materials used, and the area (square footage) of the feature.

The base price for a basement is determined using the appropriate basement column(s) in Schedule A—Dwelling Base Prices.

The replacement cost of the structure is the base price adjusted to take into account the grade of the structure. The grade multipliers for mobile and manufactured homes are provided in Table A-5 in Appendix A. The grade multipliers for stick-built room additions, exterior features, and basements are provided in Table A-6 in Appendix A.

Step-by-step instructions for determining the replacement cost of these various types of structures are provided in the sections below. Figure 4-7 includes the “Summary of Residential Improvements” section that you complete when calculating the remainder value of the structure.

[illegible]

Figure 4-7. Columns Completed in Task 2

Note: The cost schedules for mobile and manufactured homes, Schedule E.2, and Schedule A—Dwelling Base Prices are provided in Appendix C.

Determining the Replacement Cost for Mobile and Manufactured Homes

To determine the replacement cost for a mobile or manufactured home, perform these steps:

Step 1 Use the **Cost Schedules for Mobile Homes** provided in Appendix C to determine the base price for the mobile or manufactured home:

If the home is a rectangular shape, determine the base price using the exterior wall dimensions of the home.

If the home resembles a single-wide home with a smaller, tag-along section (manufactured as part of the home), value the structure as follows:

- If the single-wide is 12' x 65' and the extension is 12' x 40', value the home as a double-wide sized at 24' x 40' and add the equivalent square foot value for the single-wide extension of 12' x 25'.

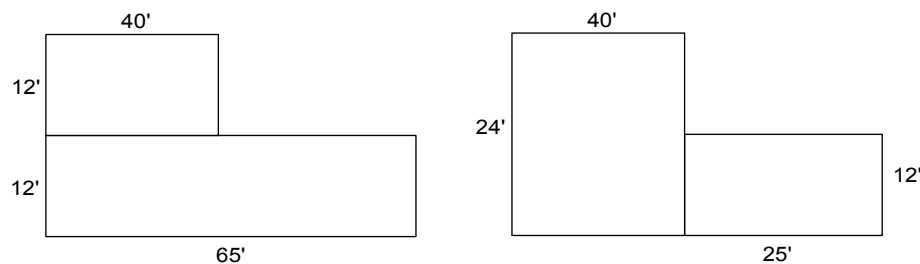


Figure 4-8. Single-Wide with Extension

- *If the home resembles a partial or full triple-wide home, determine the base price for each size as though it were a single unit, add the values, and multiply the sum by .85 (85%).*
 - a. In the “Size” column, locate the row corresponding to the nearest exterior wall dimensions of the home (entered in the “Size” column in the “Summary of Residential Improvements” section of the property record card).
 - b. Find the intersection of the selected row (size) and the “Base” column. Note the number that you find—the base price of the home.

Step 2 *If the mobile or manufactured home has air conditioning, determine the amount to add to the base price:*

Note: *If the home is a double-wide/single-wide combination, determine the air conditioning adjustment for the appropriate*

sized double-wide and add the equivalent square footage value for the single-wide extension.

- In the “Size” column, locate the row corresponding to the exterior wall dimensions of the home.
- Find the intersection of the selected row (size) and the “Add A.C.” column. Note the number that you find—the air conditioning adjustment for the home.

Step 3 *If the mobile or manufactured home does not have central heating, determine the amount to subtract from the base price:*

Note: *If the home is a double-wide/single-wide combination, determine the no heating adjustment for each area and add the two adjustments.*

- In the “Size” column, locate the row corresponding to the exterior wall dimensions of the home.
- Find the intersection of the selected row (size) and the “(–) Htng.” column. Note the number that you find—the no heating adjustment for the home.

Step 4 *If the mobile or manufactured home has a crawl space as its permanent foundation, determine the amount to add to the base price from the “Add Foundation” column:*

Note: *If the home is a double-wide/single-wide combination, add the crawl space adjustment for the double-wide area to the calculated adjustment for the single-wide extension. The crawl space adjustment for a single-wide extension uses the rate per linear foot of the side walls only.*

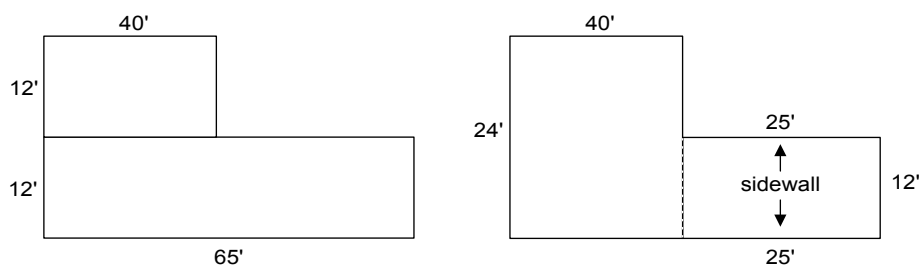


Figure 4-9. Double-Wide/Single-Wide Combination

The linear foot rate for foundation walls is provided near the end of the **Cost Schedules for Mobile Homes** in Appendix C.

- In the “Size” column, locate the row corresponding to the exterior wall dimensions of the home.
- Find the intersection of the selected row (size) and the “Add Fdtn” column. Note the number that you find—the crawl space adjustment for the home.

Note: The values in the cost schedules for the crawl space adjustment are the crawl space values in Schedule A for dwelling units with the cost of certain structural floor components subtracted. Some structural floor components are included in the base price of the mobile or modular home.

Step 5 *If the mobile or manufactured home has skirting, determine the amount to add to the base price.*

If the home has skirting only part way around it, use the skirting linear foot rate for the affected perimeter. The linear foot rate for skirting is provided in Appendix C.

Note: *If the home is a double-wide/single-wide combination, use the skirting linear foot rate for the entire perimeter of the structure. The linear foot rate for skirting is provided near the end of the **Cost Schedules for Mobile Homes** in Appendix C.*

- a. In the “Size” column, locate the row corresponding to the exterior wall dimensions of the home.
- b. Find the intersection of the selected row (size) and the “Add Skirting” column. Note the number that you find—the skirting adjustment for the home.

Step 6 *If the mobile or manufactured home has more bathrooms than one full bathroom (three fixtures), determine the amount to add to the base price:*

- a. For each additional full bathroom (three fixtures—toilet, sink, and tub or shower), add the full bath cost provided near the end of the **Cost Schedules for Mobile Homes** in Appendix C.
- b. For each additional half bathroom (two fixtures) add the half bath cost provided near the end of the **Cost Schedules for Mobile Homes** in Appendix C.

Step 7 *If the mobile or manufactured home has an expando or tip-out room addition, determine the amount to add to the base price:*

- a. In the size column, locate the row corresponding to the size of the expando or tip-out addition.
- b. Find the intersection of the selected row and the base price column. Note the number that you find—the expando or tip-out room addition adjustment for the home.

Note: Mobile/Manufactured homes are not adjusted for location by a location cost multiplier.

Step 8 Calculate the adjusted base price for the mobile or manufactured home by adding or subtracting the adjustments determined in Step 2 through Step 7 from the base price determined in Step 1:

$$\begin{array}{ccccccccccc} \text{Adjusted} & = & \text{Base} & + & \text{AC} & - & \text{No} & + & \text{Crawl} & + & \text{Skirting} & \pm & \text{Plumbing} & + & \text{Expando} \\ \text{base} & & \text{price} & & \text{adj.} & & \text{heat} & & \text{adj.} & & \text{adj.} & & \text{adj.} & & / \\ \text{price} & & & & & & \text{adj.} & & & & & & & & \text{tip-out} \\ & & & & & & & & & & & & & & \text{adj} \end{array}$$

Step 9 Divide the grade factor percentage corresponding to the grade entered in the “Grade” column in the “Summary of Residential Improvements” section of the property record card by 100 to arrive at a multiplier. Instructions for determining the grade factor percentage for mobile and manufactured homes are provided in the section ***Assigning Grades to Mobile and Manufactured Homes*** in Appendix A.

Step 10 Calculate the replacement cost for the mobile or manufactured home by multiplying the adjusted base price (calculated in Step 8) by the multiplier obtained in Step 9:

$$\begin{array}{ccccc} \text{Replacement} & = & \text{Adjusted} & \times & \text{Multiplier obtained} \\ \text{cost} & & \text{base price} & & \text{in Step 9} \end{array}$$

Round the replacement cost to the nearest \$10 and enter it in the “Replacement Cost” column in the “Summary of Residential Improvements” section.

Determining the Replacement Cost for Room Additions

To determine the replacement cost for a room addition, perform these steps:

- Step 1 Determine the addition’s construction type, such as frame, brick, and so forth.
- Step 2 Determine the addition’s story height.
- Step 3 Determine the addition’s stick-built room type:
 - three-wall addition attached at one end
 - three-wall addition attached at one side
 - two-wall addition.
- Step 4 Determine the square footage of the addition.
- Step 5 Determine the base price of the addition:
 - a. In the “Size” column, locate the row corresponding to the size of the addition.
 - b. The base price of the stick-built addition is the intersection of the selected row and the base price column.
- Step 6 Repeat Step 1 through Step 5 for each story height of the addition.
- Step 7 *If the addition has a basement*, repeat Step 3 through Step 5 to determine the amount to add to the base price for a basement.

- Step 8 *If the addition has a crawl space*, repeat Step 3 through Step 5 to determine the amount to add to the base price for a crawl space.
- Step 9 *If the addition has a finished living area in the attic or basement*, the base price is determined using the appropriate columns for attics and finished basements in **Schedule A—Dwelling Base Prices** in Appendix C.
- Step 10 *If the addition has a basement recreation room*, the adjustment to the base price is determined by using the appropriate column for recreation rooms in **Schedule C—Base Price Component and Adjustments** in Appendix C.
- Step 11 *If the addition has no heating, an unfinished interior, or has air conditioning*, the adjustment to the addition's base price is calculated by finding the difference between the adjustment for the total square footage of the entire structure (the square footage of the mobile or manufactured home plus the square footage of the addition) and the adjustment for the square footage of the original mobile or manufactured home. Use **Schedule C—Base Price Component and Adjustments** in Appendix C.
- Example.** A 1,224 square foot manufactured home has a 400 square foot stick-built room addition. The addition has air conditioning. Calculate the adjustment for the addition by finding the adjustment for 1,624 square feet and subtracting the adjustment for 1,224 square feet. The difference between the two adjustments is the adjustment for the 400 square foot addition.
- Step 12 *If the mobile or manufactured home and the addition have more than five plumbing fixtures*, determine the adjustment for the additional plumbing fixtures using the appropriate values from **Schedule D—Plumbing and Built-Ins** in Appendix C.
- Step 13 *If the mobile or manufactured home has a fireplace, attached garage, attached carport, or any other exterior features*, determine the adjustment for these features using the appropriate values from **Schedule E.1—interior features**, **Schedule E.2—Garages and Carports**, and **Schedule E.2—Exterior Features** in Appendix C.
- Step 14 Divide the grade factor percentage corresponding to the grade entered in the "Grade" column in the "Summary of Residential Improvements" section of the property record card by 100 to arrive at a multiplier. Then, follow the instructions for determining grade factor percentage for exterior features that are provided in the section **Assigning Grades to Residential Dwellings** in Appendix A.
- Step 15 Place the location multiplier from Table C-1 in the "L/M" cell on the property record card.

Note: The costs must be adjusted for location by the location cost multiplier because room additions are site built improvements.

Information on location cost multipliers can be found in Appendix C.

- Step 16 Multiply the base rate by the grade factor multiplier and the location multiplier determined in steps 14 and 15 to arrive at the adjusted base price. Enter the product in the “Adj. Rate” cell on the property record card.
- Step 17 Round the adjusted base price to the nearest \$10 and enter it in the “Replacement Cost” column in the “Summary of Residential Improvements” section.

Determining the Replacement Cost for Exterior Features

To determine the replacement cost for an exterior feature, perform these steps:

- Step 1 In the “Exterior Features” section of Schedule E.2, locate the row corresponding to the type of feature and its construction.
- Step 2 Based on the area (in square feet) of the feature, select the appropriate column below the heading “Area”.
- Step 3 Round the subject exterior feature’s square footage to the nearest 25 square feet. Find the intersection of the selected row (feature) and the selected column (area in square feet).

For exterior features larger than 400 square feet, perform the following calculations:

- a. Round the feature’s square footage to the nearest 100 square feet.
 - b. Subtract 400 square feet from the feature’s rounded square footage.
 - c. Divide the result from Step b by 100.
 - d. Multiply the result from Step c by the value in the appropriate row for the feature “per 100” column.
 - e. Add the result from Step d to the value in the appropriate row in the 400 column. Note this number.
- Step 4 Calculate the base price by multiplying the number found in Step 3 by \$100.
- Step 5 *If the exterior feature has a second story*, repeat Step 1 through Step 4 for the second story and sum the base prices for the two stories.
- Step 6 Divide the grade factor percentage corresponding to the grade entered in the “Grade” column in the “Summary of Residential Improvements” section of the property record card by 100 to arrive at a multiplier. Instructions for determining the grade factor percentage for exterior features are provided in the section **Assigning Grades to Residential Dwellings** in Appendix A.

Step 7 Place the location multiplier from Table C-1 in the “L/M” cell on the property record card.

Note: The costs must be adjusted for location by the location cost multiplier because exterior features are site built improvements. Information on location cost multipliers can be found in Appendix C.

Step 8 Multiply the base rate by the grade factor multiplier and the location multiplier determined in steps 6 and 7 to arrive at the adjusted base price. Enter the product in the “Adj. Rate” cell on the property record card.

Step 9 Round the adjusted base price to the nearest \$10 and enter it in the “Replacement Cost” column in the “Summary of Residential Improvements” section.

Determining the Replacement Cost for Basements

To determine the replacement cost for an **unfinished basement**, use Schedule A Dwelling Base Prices and perform these steps:

Step 1 In the “Area” column, locate the row corresponding to the area closest to the basement area.

Step 2 Locate the “Unfin Bsmt” column.

Step 3 Find the intersection of the selected row (area in square feet) and the “Unfin Bsmt” column. Note the number that you find.

Step 4 Calculate the base price by multiplying the number found in Step 3 by \$100.

Step 5 Divide the grade factor percentage corresponding to the grade entered in the “Grade” column in the “Summary of Residential Improvements” section of the property record card by 100 to arrive at a multiplier. Instructions for determining the grade factor percentage for basements are provided in the section **Assigning Grades to Residential Dwellings** in Appendix A.

Step 6 Place the location multiplier from Table C-1 in the “L/M” cell on the property record card.

Note: The costs must be adjusted for location by the location cost multiplier because basements are site built improvements. Information on location cost multipliers can be found in Appendix C.

Step 7 Multiply the base rate by the grade factor multiplier and the location multiplier determined in steps 5 and 6 to arrive at the adjusted base price. Enter the product in the “Adj. Rate” cell on the property record card.

Step 8 Round the adjusted base price to the nearest \$10 and enter it in the “Replacement Cost” column in the “Summary of Residential Improvements” section.

To determine the replacement cost for a **basement with a finished living area**, use Schedule A Dwelling Base Prices and perform these steps:

- Step 1 Determine the base price of the unfinished basement area by performing Step 1 through Step 4 above.
 - Step 2 In the “Area” column, locate the row corresponding to the area closest to the finished area.
 - Step 3 Locate the “Bsmt Fin” column.
 - Step 4 Find the intersection of the selected row (area in square feet) and the “Bsmt Fin” column. Note the number that you find.
 - Step 5 Calculate the base price for the finished basement area by multiplying the number found in Step 3 by \$100.
 - Step 6 Calculate the base price for the basement by summing the base price for the unfinished area (calculated in Step 1) and the base price for the finished area (calculated in Step 5).
 - Step 7 Divide the grade factor percentage corresponding to the grade entered in the “Grade” column in the “Summary of Residential Improvements” section of the property record card by 100 to arrive at a multiplier. Instructions for determining the grade factor percentage for basement are provided in the section **Assigning Grades to Residential Dwellings** in Appendix A.
 - Step 8 Place the location multiplier from Table C-1 in the “L/M” cell on the property record card.
- Note:** The costs must be adjusted for location by the location cost multiplier because basements are site built improvements. Information on location cost multipliers can be found in Appendix C.
- Step 9 Multiply the base rate by the grade factor multiplier and the location multiplier determined in steps 7 and 8 to arrive at the adjusted base price. Enter the product in the “Adj. Rate” cell on the property record card.
 - Step 10 Round the adjusted base price to the nearest \$10 and enter it in the “Replacement Cost” column in the “Summary of Residential Improvements” section. To determine the cost for a basement with a rec room, see the section **Task 3—Record Information About the Construction**, in this chapter.

Task 3—Calculating the Remainder Value

The structure’s remainder value is its replacement cost adjusted for total depreciation. The shading in Figure 4-10 indicates the columns of the “Summary of Residential Improvements” table that you complete when calculating the remainder value of the structure.

IMPROVEMENT DATA AND COMPUTATIONS																
										IMPROVEMENT FEATURES						
										Major Items						
										Agricultural						
										BARN T/S/L/P/E/I/D/Q CONFINEMENT T/P/E/C/I Silted Floors CORN CRIB FrameWire Fence/Wire No Root Floor						
										Residential						
										BOAT HOUSE T/G/D/Q Open Side Cabin T/G/D Back-to-back DETACHED GARAGE T/G/D/L/Q GREENHOUSE Lean-to Attached at End SWIMMING POOL Underwater Lighting Fence/Ceramic/Plastic Heater Non-rectangular Shape Enclosure Type TENNIS COURT Asphalt UTILITY SHED T/G						
										Residential						
										BOAT HOUSE T/G/D/Q Open Side Cabin T/G/D Back-to-back DETACHED GARAGE T/G/D/L/Q GREENHOUSE Lean-to Attached at End SWIMMING POOL Underwater Lighting Fence/Ceramic/Plastic Heater Non-rectangular Shape Enclosure Type TENNIS COURT Asphalt UTILITY SHED T/G						
O T E N																
SUMMARY OF RESIDENTIAL IMPROVEMENTS																
ID	Use	Story Height	Const. Type	Year Const.	Grade	Eff. Age	Cond.	Base Rate	Features	L/M	Adj. Rate	Size or Area	Replacement Cost	Total Degr. Value	% Comp	Improvment Value
01	Dwelling															
02																
03																
04																
05																
06																
07																
													Supplemental Card Residential Improvement Value			
													Total Residential Improvement Value			
SUMMARY OF NON-RESIDENTIAL IMPROVEMENTS																
ID	Use	Story Height	Const. Type	Year Const.	Grade	Eff. Age	Cond.	Base Rate	Features	L/M	Adj. Rate	Size or Area	Replacement Cost	Normal Degr. Value	Abnorm. Obs.	Improvment Value
01																
02																
03																
04																
05																
06																
													Supplemental Card Non-Residential Improvement Value			
													Total Non-Residential Improvement Value			

Figure 4-10. Columns Completed in Task 3

To calculate the remainder value, perform these steps:

- Step 1 Subtract the percentage determined for total depreciation (entered in the “Total Depr.” column) from 100%.
- Step 2 Divide the result obtained in Step 1 by 100 to arrive at a multiplier.
- Step 3 Calculate the remainder value by multiplying the replacement cost of the structure (entered in the “Replacement Cost” column) by the multiplier obtained in Step 2.

$$\text{Remainder cost} = \text{Replacement cost} \times \text{Multiplier obtained in Step 2}$$

Round the remainder value to the nearest \$10. Then, enter the rounded remainder value in the “Remainder Value” column.

Example: The replacement cost of a structure is \$8,000. The total depreciation percentage for the structure is 30%. The remainder value is:
 $100\% - 30\% = 70\% \div 100 = .70 \times \$8,000 = \$5,600.$

Task 4—Calculating the Improvement Value

The structure’s improvement value is its remainder value multiplied by the percent complete (if applicable) and neighborhood factor rounded to the nearest \$100. The shading in Figure 4-11 indicates the columns of the “Summary of Residential Improvements” table that you complete when calculating the improvement value of the structure.

- Step 1 If the improvement being valued is less than 100% complete on the assessment date, enter the percentage complete in the “% Comp” cell. Information on percentage completion can be found in Appendix C.
- Step 2 Calculate the neighborhood factor and enter the result in the “Nhbd Factor” cell. Information on neighborhood factors can be found in Appendix B.
- Step 3 The improvement value is the remainder value of the dwelling, adjusted for % complete and neighborhood factor (if necessary), rounded to the nearest \$100. Enter this amount in the “Improvement Value” column on the property record card.

[illegible]

Figure 4-11. Columns Completed in Task 4

Task 5—Calculating the Total Residential Improvement Value

Calculate the improvement value for each structure by performing Task 1 through Task 4 for each structure. If you run out of rows in the “Summary of Residential Improvements” section of the property record card, use an additional card (or cards).

Note: Instructions for completing the “Summary of Non-Residential Improvements” section for residential and agricultural yard structures are provided in Chapter 5.

To calculate the total residential improvement value for the property, perform these steps:

Step 1 *If you used **only one** property record card to complete the “Summary of Residential Improvements” for the property, sum the entries in the “Improvement Value” column and enter the total in the “Total Residential Improvement Value” cell.*

*If you used **more than one** property record card to complete the “Summary of Residential Improvements” for the property, on each card except Card 001, sum the entries in the “Improvement Value” column and enter the total in the “Total Residential Improvement Value” cell.*

Step 2 Sum the entries in the “Total Residential Improvement Value” cell of all of the property record cards except Card 001. Enter the total in the “Supplemental Card Residential Improvement Total” cell on Card 001.

Step 3 On Card 001, sum the entries in the “Improvement Value” column, including the entry in the “Supplemental Card Residential Improvement Total” cell and enter the total in the “Total Residential Improvement Value” cell.

Example 1: The example in Figure 4-12 represents a custom grade manufactured home built in 1994. The home has measurements of 32' x 59' and contains 3 bedrooms, a kitchen, a living room, and a designed dining room. There are 2 full baths. The home has both central heat and central air conditioning. The condition of the home is average.

Other features of the home are a C grade unfinished basement of 1,888 square feet. Attached to the front of the home is an open frame porch which measures 8' x 20'. Both the basement and the porch were built in 1994 and are in average condition. The improvements are located in Wells Co.

[illegible]

**Figure 4-12. Calculating the Total Residential Improvement Value
Example 1**

Example 2: The mobile home illustrated in Figure 4-13 was built in 1970 and has structural measurements of 12' x 61'. This portion of the home has a foundation and there is an 8' x 20' manufactured room tip-out located on the front. There is one full bath and a central heating system only. The grade assigned is Economy.

In 1982, the owner built a 12' x 20' stick built room addition with a crawl space on the front of the mobile home. At that time a 7' x 12' wood deck was also added. The room addition is graded D grade while the deck is graded C. Both are in average condition. The improvements are located in Elkhart Co.

[illegible]

Figure 4-13. Calculating the Total Residential Improvement Value Example 2